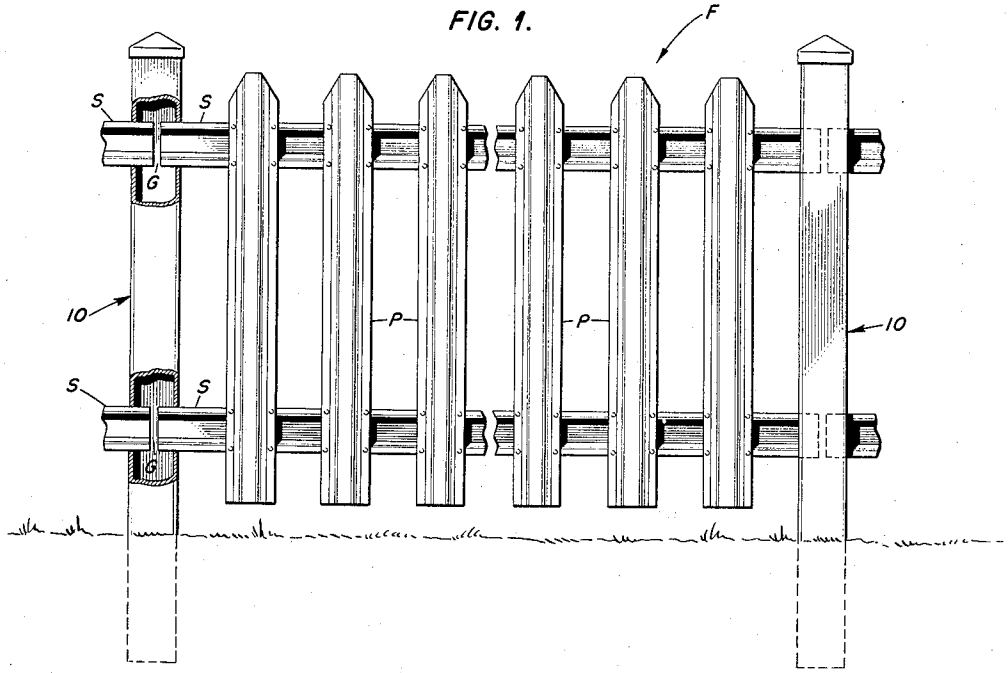
Dec. 29, 1959 T. R. COFIELD 2,919,113

FENCE POST WITH EXPANSION JOINT

Filed April 8, 1958

FIG. 1.



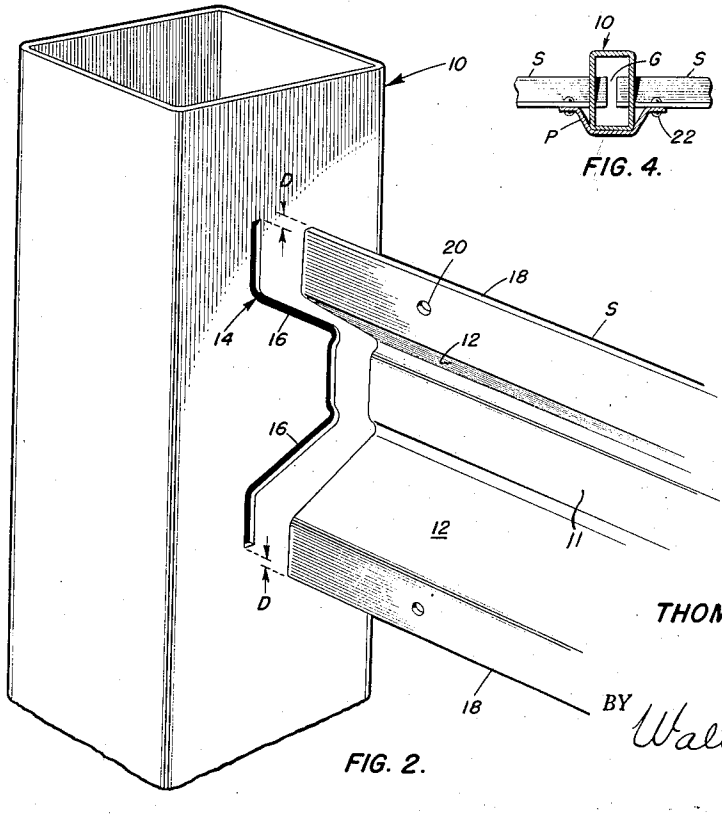


FIG. 2.

FIG. 4.

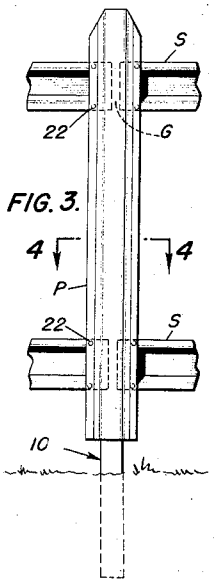


FIG. 3.

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FENCE POST WITH EXPANSION JOINT

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4 Claims. (Cl. 256—65)

This invention relates generally to fence posts. More particularly, this invention pertains to fence posts with expansion joint hangers for picket-type fences.

The expansion from winter to summer temperature range is typically .080 inch per eight foot section of aluminum fence. Where the sections run co-linearly and are rigidly secured to each other, this variation is cumulative. The result is an unsightly buckling of the fence line and possible breakage or uprooting of the entire structure.

It is the primary object of this invention to provide a fence post with fence supports combining the functions of fence hanger and expansion joint.

Another object of this invention is to provide a fence hanger which will not rattle in the wind.

Still another object of this invention is to provide a fence post with fence hanging means having expansion qualities and disguised as a picket.

Other objects of this invention are to provide fence picket sections having expansion means at the opposite ends thereof which are economical to manufacture, easy to install and maintain, and which are efficient and reliable in operational use.

These and other objects and advantages of this invention will become more readily apparent and understood from the accompanying specification and single sheet of drawings in which:

Fig. 1 is a side elevation of a fence partially broken away to show some of the details of the invention;

Fig. 2 is a perspective view of a detail of Fig. 1 illustrating the relationship between parts of the invention;

Fig. 3 is a side elevation of a fence function embodying principles of the invention; and

Fig. 4 is a cross-section view in the direction of the arrows 4—4 of Fig. 3.

Referring now to the details of the drawings, there is shown in Fig. 1 a fence section F having sheet metal formed pickets P and sheet metal formed stringers S.

At opposite ends of each fence section F, there are provided tubular metal posts 10. Each post 10 has cut into its opposite sides, a slot 14 of substantially hat-shape having a central portion 15 and angularly offset shaped portions 16 terminating in end portions 19, as best shown in Fig. 2. Each fence stringer S, on the other hand, is formed of resilient material and is also of hat-shape cross section corresponding substantially to the hat-shape cross section of the slot 14. Each stringer S, as shown in Fig. 2, consists of a base 11, with a web 12 extending outwardly and angularly from the opposite sides of the base, together with a flange 18 extending outwardly and angularly from its corresponding web 12. With a slight discrepancy to be further explained, the cross-section of stringer S conforms to the shape of slot 14.

In installation, the stringers S of fence section F are slightly compressed at distance D, vertically the amount necessary for flanges 18 to enter into slot 14. Another fence section F is inserted into similar slots 14 on the opposite side of post 10, leaving an expansion gap G between ends of their respective stringers S.

The resilience of the metal making up stringers S exerts a constant spring grip within slot 14 in no way, however, preventing horizontal expansion of the stringers S. There results a tight, non-rattling fence structure of neat appearance and of economical construction.

If it is desired to build a fence having a disguised fence post or one having still further strength, the construction shown in Figs. 3 and 4 is employed.

In this case, a picket P is placed astride the side of post 10. Picket P is joined on both sides to the flanges 18 of pairs of opposing fence stringers S by means of rivets 22 passed through holes 20.

It can be seen that variation of expansion gap G is not interfered with inasmuch as the sides of picket P will flex to accommodate the motion.

Obviously, many modifications and variations of the present invention are possible in light of the above teachings. It is, therefore, to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. A fence arrangement, comprising, at least one section of fencing having a pair of parallel spaced stringers and a plurality of vertically mounted pickets attached thereto, and a tubular fence post for supporting said stringers at at least one end of said section, each said stringer being formed of resilient material and having a hat shape cross-section including a base, a web extending outwardly and angularly from the opposite sides of said base, and a flange extending outwardly and angularly from its corresponding web, a face of said post having a pair of spaced slots provided therethrough along the longitudinal axis thereof, with each slot corresponding in cross-section substantially to the hat shape cross-section of said stringers but with the width of each stringer at its flanges being slightly greater than the width of the corresponding part of each slot so that each stringer is slightly deformed when inserted in its corresponding slot, with the resiliency of the metal of each stringer exerting a constant spring grip on the surfaces of its corresponding slot due to the deformity of each said stringer, said slots providing for horizontal expansion of the stringers when said stringers are positioned in said slots and for the minimization of rattling of said fence arrangement.

2. An arrangement for joining a fence section to supporting posts, comprising, at least one section of fencing having a pair of parallel spaced stringers and a plurality of vertically mounted pickets attached thereto, and a tubular fence post at each end of said section for supporting said stringers at least one end of said section, each said stringer being formed of resilient material and having a hat shape cross-section including a base, a web extending outwardly and angularly from the opposite sides of said base, and a flange extending outwardly and angularly from its corresponding web, a face of each said post having a pair of spaced slots provided therethrough along the longitudinal axis thereof, with each slot corresponding in cross-section substantially to the hat-shape cross section of said stringers but with the width of each stringer at its flanges being slightly greater than the width of the corresponding part of each slot so that each stringer is slightly deformed when inserted in its corresponding slot, with the resiliency of the metal of each stringer exerting a constant spring grip on the surfaces of its corresponding slot due to the deformity of each said stringer, said slots providing for horizontal expansion of the stringers when said stringers are positioned in said slots and for the minimization of rattling of said fence.

3. An arrangement as recited in claim 2, wherein a plurality of sections of fence are provided, with each post being located between adjacent sections of fence.

4. An arrangement as recited in claim 3, and picket means for encompassing one face of each post and for securing the ends of adjacent pairs of stringers in each fence section together.

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